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CLINICAL CASE

Giant tubular adenoma of the breast, a rare bening pathology: A case report

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Abstract

Introduction: Tubular adenoma of the breast is a benign pathology in young women as a unilateral mass that generates breast asymmetry and tends to be confused with juvenile giant fibroadenoma, differing in the histopathological study. It is a very rare pathology, with exceptional cases reported in the literature of greater than 10 cm, which is the reason for presenting this case.

Clinical case: We present the case of a 21-year-old woman with a mass of approximately 10 cm in the right breast of 1 year of evolution with gradual growth, without associated symptoms. Physical examination showed no axillary node hypertrophy.

Diagnostic workshop: The patient underwent surgical excision, reporting a tubular adenoma of the breast in the definitive pathological study.

Conclusion: It is a rare pathology, but we must know it and have a minimum of diagnostic suspicion to avoid confusion with malignant breast pathology.

Keywords:
DCS: Breast Neoplasms; Breast, Adenoma, Unilateral Breast Neoplasms, Case Reports.

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Introduction

Tubular adenoma of the breast is a tumor of epithelial origin, which is extremely rare, with an incidence of less than 2% of benign lesions [1]. This almost always presents in young patients of reproductive age as a unilateral mass, painless or painful, of variable growth, but that alters the symmetry and shape of the affected breast, causing a sensation of a tumor that leads the patient to seek medical care. Being familiar with young patients, the diagnostic method of choice is breast ultrasound, which characterizes it as a single, well-defined mass with a preferred location in the outer quadrants, commonly cataloged as BIRADS 4 [2]. The usual size is 1 to 7 cm; only one case reported in the literature shows a tubular adenoma of 10 cm [3]. Since there are few reported cases, there are no clear guidelines for established treatment. Nevertheless, surgical exeresis's the most accepted therapy globally, confirming the histopathological diagnosis since it is a benign pathology [3].

Clinical case

This is a 21-year-old woman with no relevant medical history who was nulliparous with no reported contraceptive treatment. She went to the mastology consultation due to a sensation of a mass in the right breast in the outer quadrants of progressive growth, which led to a breast ultrasound that reported a hypoechoic, oval group with microcalcifications with well-defined contours, peripheral vascularization, and mild central that projects in the upper external quadrant and that occupied a large part of the upper quadrants of the breast. Cataloged as BIRADS 4B (figure 1).

Examination revealed an increase in size in the right breast relative to the contralateral breast. A tumor involving the upper quadrants was palpated with the following characteristics: mobile, slightly painful on palpation, approximately 10 cm. Surgical excision was performed under general anesthesia and with a periareolar incision.

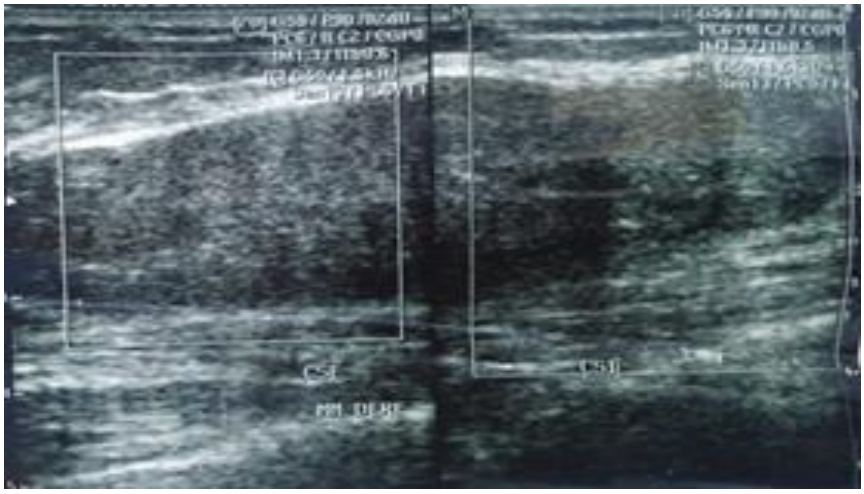

Figure 1. Breast ultrasound. A well-defined hypoechogenic lesion with microcalcifications. BIRADS 4B

Diagnostic workshop and evolution

The pathology study showed a tumor size of 10 x 7 x 2.5 cm (Figure 2), and the histopathological examination revealed the diagnosis of tubular adenoma of the breast (Figure 3). There were no postsurgical complications; he attended controls with an excellent aesthetic result of the surgery performed, with no evidence of recurrence up to one year after surgery.

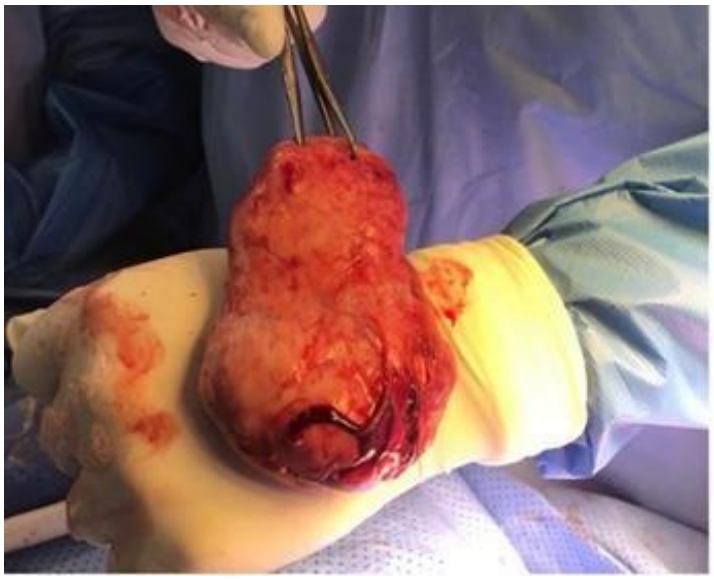

Figure 2. Tumor macroscopy. Size 10 x7 x 2.5 cm.

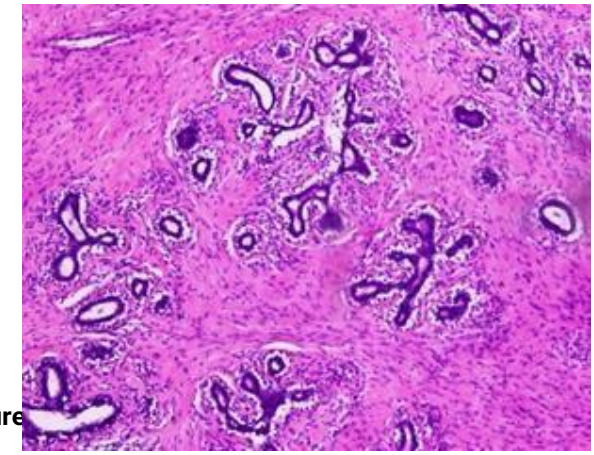

Figure 3. Microscopy Tubular Adenoma of the Breast, Hematoxylin and Eosin staining.

Discussion

A tubular adenoma is a benign epithelial tumor of the breast; it is scarce, and its incidence ranges from 0.13 to 1.7% of benign breast lesions [1–3]. It is more common in young women of reproductive age [4]. Although cases have been reported at the extremes of life, postmenopausal women are rarely affected [1]. There are only three reported cases [5]. Thus, 90% of patients are under 30 at diagnosis [6] [7].

No relationship with contraceptive therapy or pregnancy has been established, and there are no reports in male patients [6].

The World Health Organization defines tubular adenomas as "benign nodules, usually round, formed by a compact proliferation of tubular structures composed of typical epithelial and myoepithelial cell layers" [8]. Its most common presentation is a circumscribed, well-defined, single, nonpainful nodule; there is a pain in only 25% of cases [4]. It does not cause skin or nipple disturbance and often occurs in the upper and outer quadrants [2]. A published issue of a tubular adenoma located in an accessory breast [9]. The size can vary from 1 cm to 10 cm [5]. They are characterized by slow growth [1, 3].

It always shows a delicate appearance on imaging (well-circumscribed, hypoechoic mass on ultrasound) [10]. Microcalcifications may be present [2], especially in postmenopausal patients, so a biopsy is needed to rule out malignancy [1, 5, 6, 10].

Microscopically, it is circumscribed, not encapsulated, with a solid surface, homogeneous, yellow to brown; macroscopic features associated with malignancy, such as hard consistency, skin changes, or ill-defined borders, are rare [10]. As a strange location, a case of intraductal place has been reported [11]

Microscopically, the tubular adenoma comprises densely packed, tiny, rounded, uniform tubules with sparse stroma and a double epithelial and myoepithelial layer. There is no epithelial atopy or scant mitosis [4].

Cases of combined tubular adenoma-fibroadenoma lesions have been reported [4] and phyllodes tumors [12]. Cytology causes much confusion due to the excess of tubular cells that can lead to the misdiagnosis of tubular adenosis or tubular carcinoma [2, 3], so it is not considered the first choice [3].

Although tubular adenoma has no potential risk of becoming malignant to carcinoma [2], it can coexist with one [8, 15].

Colocalization of tubular adenoma with invasive ductal carcinoma has been described [5]. Association with Maffucci syndrome [13].

The differential diagnosis of tubular adenoma includes fibroadenoma, ductal adenoma, nipple adenoma, microglandular adenosis, sclerosing adenosis, gestational hyperplasia, lactating adenoma, and ductal carcinoma [5].

Lactating adenoma occurs in pregnancy, contraceptive use, and lactation [14]; for this reason, they are considered tubular adenomas with physiological changes [2].

Total surgical excision of the tubular adenoma is the curative treatment of this pathology due to its benign nature; however, as it is rare and not studied as much, there are no established guidelines for its management [5]. The necessary follow-up to prevent recurrence is unknown. However, there is no evidence of recurrence up to 18 months after surgery [1, 5]. For follow-up, it is suggested to perform an annual physical examination and mammography in patients older than 40 years [5].

Conclusions

The giant presentation tubular adenoma is a rare pathology whose incidence in our environment is not documented, so more studies are needed to understand the nature of this benign pathology.

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Abbreviations

BI-RADS : from the acronym Breast Imaging Reporting and Data System.

Administrative information

Additional Files

The authors declare none.

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Author contributions

Jorge Chehab Andrade: conceptualization, validation, visualization, methodology, project management, writing: review and editing, data curation, formal analysis.
Héctor Montes Lainez: conceptualization, validation, visualization, methodology, project management, writing: review and editing, data curation, formal analysis, fundraising, research, resources, software, writing -original draft.
Marcos Zambrano Avellán: conceptualization, formal analysis, acquisition of funds, research, resources, software, writing -original draft.
All authors read and approved the final version of the manuscript.

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Conflicts of interest

The authors declare that they have no conflicts of competence or interest.

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